UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:
5HR-12

APR 23 1991

Mr. J. Michael Jarvis
Franklin Power Products, Inc
P.O. Box 667
Franklin, Indiana 46131

Re: Consent Order
U.S. EPA-Franklin Power Products/Amphenol Corporation
Dated November 27, 1990

Dear Mr. Jarvis:

The United States Environmental Protection Agency (U.S. EPA) has reviewed the Quality Assurance Project Plan (QAPjP) submitted by Franklin Power Products pursuant to the above referenced Consent Order. Prior to approval of the QAPjP, the comments noted in the enclosed memorandum dated March 26, 1991, should be addressed in a revised QAPjP. However, we advise that comments III A, B, C, E.1 and E.4, H, and the last sentence of F of the March 26, 1991, memorandum be disregarded. We also advise that Section 1.2.2 (Geologic Setting), Section 1.3 (Previous Investigation and Remedial Response), and Appendix A of the QAPP be omitted. In addition, to the revisions prescribed in the March 1991 memorandum, we require the following revisions:

a. Page 2 - substitute Southwest Oklahoma Laboratory of Oklahoma for Compuchem Laboratories.

b. Revise Figure 3 so the soil boring locations for SB6 and SB7 correspond to the locations shown in Exhibit B of the Consent Order. A total of nine soil borings should be shown on Figure 3.

c. Section 1.5, first subparagraph - omit the word volatile since a larger scope of organics will be addressed.

d. Revise Figure 5 to show the additional soil vapor sampling locations as indicated in the enclosed illustration.

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e. Revise Figure 4 so that sampling point location of SW01 and SW02 agree with Figure 14 of the RFI Workplan - October 1988.

f. Revise the HSL list of volatiles so that it agrees with Table 9 of the RFI Workplan - October 1988.

If you have any questions call William Buller of my staff at (312) 886-4568. Please provide a revised QAPjP to U.S. EPA within thirty (30) days of receipt of this letter.

Sincerely yours,

Joseph M. Boyle, for

Kevin Pierard, Acting Chief
RCRA Enforcement Branch

Enclosures

cc: James Keith, W.W. Engineering & Science, Inc.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF: 5SMQA

MEMORANDUM

DATE: MAR 26 1991

SUBJECT: Review of the First Draft of Quality Assurance Project Plan (QAPjP) for the RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) Activity at the Franklin Power Products/Amphenol Facility Site in Franklin, Indiana

FROM: George Schupp, Chief
Quality Assurance Section

TO: William Buller, Project Coordinator
RCRA Enforcement Branch

We have reviewed the first draft of the subject QAPjP, which was received by the Quality Assurance Section (QAS) on February 22, 1991 (QAS Log-In No. 2). We find this subject QAPjP is rather a generic document, which lacks of many details. This QAPjP is not approvable until deficiencies listed in this memorandum are adequately addressed.

Our comments on this draft QAPjP are summarized as follows:

I. TTILE/SIGNATURE PAGE

A. The title/signature page should be revised to include provisions for approval signature by the following responsible parties:

1. Project Officer/Manager of the engineering firm;

2. Quality Assurance Officer of the engineering firm, etc.

B. Please change "U.S. EPA QA Branch Officer" to "U.S. EPA Regional Quality Assurance Manager".

II. TABLE OF CONTENT

A. The table of content should include the page number where each section or subsection can be found.

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## III. PROJECT DESCRIPTION

A. In Section 1.3 (Previous Investigation and Remedial Response), please address the following:

1. A summary table of the available past data should be provided. This table should include the sample type, contaminants detected, the methods used for the analysis and their method detection limits, and concentration range of each contaminant detected.

2. Discussion on contaminants detected in the previous activities should account for both soil and water samples. The description of the current draft QAPjP mentioned only the water samples. Please revise it to include discussion on soil samples as well.

3. Througout this section, only data of volatile organics are mentioned. Please revise the description to include analytical results of other parameters such as metals, cyanide, semivolatiles, etc..

4. For soil samples, the results of analysis were referred to the ATEC's summary report dated October 24, 1984; however, this report is not attached to this subject QAPjP for review. Please provide a summary table and, in the text, reference the analytical results of soil samples to the summary table.

B. In Section 1.3.3, it indicated that hydrogeologic investigation was done by IT in 1985; however, no information pertaining to number of aquifers, flow direction of groundwater, etc., are provided in this section. Please provide these information if available.

C. It is not clear whehter there are private wells, within 3 mile radius around the site, that may be impacted by the contaminants released from the site. If the answer to this question is yes, then the private well samples should also be collected for analysis with low detection limits. A SOP should be written for this purpose.

E. In Table 1 (Sampling Summary), please address the following:

1. Different number of samples of the same matrix ( i.e. groundwater) are designated for different analysis. Please provide the rationale for selecting sampling locations as well as number of samples for different analysis. Furthermore, are these samples (or data) collected for analysis will be adequate to achieve one of the project objective, which is to determine the plume. Please address it .

2. The holding time for mercury should be specified to be 26 days.

3. Water samples collected for the analysis of volatiles should be preserved with HCl.

4. Please expalin why only VOCs and metal/cyanide are to be tested for surface water, soil. sediment and soil vapor samples.

F. The target compounds for this RFI/CMS is referred to the Work Plan and the Consent order. However, neither of these documents are attached to QAPjP for review. Please provide the complete target compounds list, including the required detection limit for both soil/sediment and water samples. Furthermore, it is not clear why the general water quality parameters such as chloride, sulfate, etc., are not included as target compounds. Please explain.

G. The project objectives in Section 1.5 is not adequately addressed. The description should include the intended data usage and the required level data quality objectives (DQOs). The intended data usage should not be confused with general project objectives, which is the scope of work, and should be specifically identified. The level of DQOs for the RFI should be level IV, except the field screening using HNu, which should be at least level II.

H. In Section 1.5, it is stated that data from RFI will be used to define the background values for contaminants in groundwater; however, it fails to provide details how it will be acomplished. Please describe how the background values will be defined from the RFI data.

I. In page 11 of 12, it is indicated that two of the sediment samples will be collected as composite samples. This is not acceptable for the analysis of volatile organics. Please revise it so that all VOA samples will be collected as grab samples.

## IV. PROJECT ORGANIZATION AND REPSONSIBILITY

A. Figure 7 should be revised to include the following:

1. U.S. EPA Project Coordinator;

2. U.S. EPA Region V Regional Quality Assurance Manager;

3. U. S. EPA Region V Central Regional Laboratory, etc.

B. Please address the function/responsibility of Region V Quality Assurance Manager, Central Regional Laboratory, and the Project Coordinator.

V. QUALITY ASSURANCE OBJECTIVES

A. The preparation of equipment blanks should be properly described or referenced.

B. The level of field QA effort is not addressed. Please provide the required level of field QA effort by describing the collection of field QC samples and the frequency of their collection.

VI. SAMPLING PROCEDURE

A. In Section 4.1, please address the following:

1. It is stated that all sample containers and reagent used as preservatives will be provided by the contract laboratory. However, the procedures used by the contract laboratory to prepare/cleaning sample containers are not provided. Please provide the standard operating procedure (SOP) used by the contract lab to clean the sample bottle, including the quality assurance/quality control practice used to ensure the quality of sample containers.

   NOTE: If more than one laboratory is providing sample containers, separate SOP used by each laboratory should be attached to the QAPjP for review/approval.

2. In the third paragraph of page 1 of 10, please add a sentence to state that, if pH of sample is geater than 7.0, then the pH meter will be recalibrated with pH 11 buffer and pH 7 buffer, and then pH of the sample will be remeasured.

B. In Section 4.5 (Groundwater Sampling Procedure), please provide the specification of sample filtering in field. Please note that groundwater collected for the analysis of metals is required to be field filtered prior to the addition of preservative. Please add a sentence to address this.

NOTE: samples collected for the analysis of parameters other than metals should not be filtered.

C. In Section 4.6 (Surface Water Sampling procedures), please state that surface water collected for metal analysis will not be field filtered.

D. In Section 4.7 (Sediment Sampling Procedure), please state that sediment samples will be collected along with the surface water samples from the same sampling location.

E. In Section 4.8 and 4.9, HNu is mentioned to be used to select samples for laboratory analysis, a standard operating procedure shall be written and attached to QAPjP for review/approval. Use the attached Guideline to prepare the required SOP.

F. In Section 4.10, the extra sample volume that is needed for the matrix spike/matrix sike duplicate (MS/MSD) analysis is required for both volatiles, and other organic analysis such as semivolatiles, pesticides, etc. The sample designated for MS/MSD should be collected triple the normal volume for volatile organic analysis, and double the normal volume for other organic analysis. Please revise it accordingly.

## VII. SAMPLE CUSTODY AND RECORDKEEPING

A. The description of the chain-of-custody is not complete. The chain-of custody begins at the time of preparation for the field activity, and it consists of three major parts, namely chain-of-custody procedure for field activity (sampling and measurements), chain-of custody procedure for laboratory analysis, and the final evidence file. Please address the following:

1. chain-of-custody for the field activity -

2. The final project evidence file -

NOTE: The description should include the contents of the porject evidence file, and the file custodian.

B. If more than one laboratory is to be used for the project, chain-of-custody to be followed by each laboratory should be documented.

## VIII. CALIBRATION PROCEDURE AND FREQUENCY

A. For calibration of laboratory instruments, please provide a brief description on how the calibration of each instrument will be done, and reference the operational details to the appropriate SOP.

## IX. ANALYTICAL PROCEDURES

Please address the following:

A. The analytical methodologies to be used for each analysis should be specified in this section. It is not acceptable to reference it to the laboratory QAPjP, which do not contain these information. It is required that methods to be used should be identified in the QAPjP. Please address them accordingly.

B. The HNu is originally mentioned in Section 4.5 to be used for the purpose of personnel health and safety; however, it is mentioned in this section that it will be used to select samples for laboratory analysis. For this purpose, a standard operating procedure (SOP) should be written and submitted for review/approval.

C. The target compounds is referred to Appendix B, which does not include all of the compounds to be tested, and the required detection limits. Please complete the Appendix B.

D. Please provide the procedures to be used to measure the groundwater flow direction.

## X. DATA REDUCTION, VALIDATION, AND REPORTING

A. In Section 8.2 (Data Reduction and Reporting), please address the following:

1. The data reporting format to be used to report the analytical results should be described in this section. Please outline the content of the data package for each analysis.

2. The procedures to be used to reduce the instrument printout to the final reporting unit should be described.

B. In Section 8.3 (Data Validation), when the EPA data validation guideline is referenced, please provide the name of the document, including the date issued. The most current documents are as follows:

1. Laboratory Data Validation Functional Guidelines for Evaluating Organic Analysis, February 1, 1988.

2. Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analysis, July 1, 1988.

C. In Section 8.1 (General), bullet #8 is not quite appropriate because, for metals analysis using graphite furnace AA, matrix spike is required for all samples to determine whether method of addition should be used. Please revise this bullet accordingly.

## XI. INTERNAL QUALITY CONTROL CHECK

A. The description of the QAPjP element should also account for internal quality control check of the field sampling and measurements. The internal QC check for field activity should include the collection of field QC samples for field sampling, and the initial calibration, continuing calibraiton check, duplicate analysis, etc. for field measurements. Please address them.

B. The acceptance control limits for the internal QC checks should be specified for both field and laboratory measurements. Please specify the acceptance control limits.

## XII. PERFORMANCE AND SYSTEM AUDITS

The description of performance and system audits should include both internal and external audits of field and laboratory activities:

A. Internal audits of both field sampling/measurements and laboratory analysis are the responsibility of contracted engineering firm's project manager and/or quality assurance officer. The description of internal audits should include the following:

1. Identify the parties that are responsible for field audits and laboratory audits respectively.

2. Describe the procedures to be used for field and laboratory audits respectively.

B. External audits of both field sampling/measurements and laboratory analysis is the responsibility of the U.S. EPA. The Region V Central Regional Laboratory (CRL) is responsible for auditing laborator(ies) for approval/disapproval. The CRL and/or Central District Office (CDO) are responsible for field audits. Please address them accordingly.

XIII. PREVENTATIVE MAINTENANCE

A. The description of the preventative maintenance of field instruments should account for the field gas chromatography. Please address it accordingly.

XIV. DATA ASSESSMENT SECTION

A. The heading of this section should be revised to read, "SPECIFIC ROUTINE PROCEDURES USED TO ASSESS DATA PRECISION, ACCURACY, AND COMPLETENESS.

B. It is not acceptable to reference the data assessment procedures and equations to the laboratory QAPjP. Please provide the procedures and equations to be used in this section.

XV. CORRECTIVE ACTIONS

A. The description of the corrective actions should also include the following:

1. The line of authority in initiating, developing, approval and implementing corrective action. Identify the parties responsible for each function.

2. Corrective actions to be taken for the field sampling and measurements should also be described.

XVI. APPENDIX (QAPjP of Southwest Laboratory of Oklahoma, Inc)

This is an rather generic and incomplete document. We only comment on part of the document:

A. The completeness specified in Section 4 is inconsistent with the QAPjP. Please revise it accordingly.

B. For the analysis of volatiles, semivolatiles, and pesticide/PCBs, both 600 series methods and SW-846 methods are listed. Please delete the 600 series which are not to be used.

C. Please clarify whether dioxin will be tested. If not, it should be deleted from Section 4.

D. In Section 6, please provide example of internal sample tracking during sample storage, sample preparation and analysis.

E. In Section 7, the intial calibration standard solution and the continuing calibration standard solution should contain all of the target compounds. Please revise it accordingly.

If you have any questions regarding this memorandum, please contact Cheng-Wen Tsai, Chemist, of my staff at 886-6220.

We also would strongly suggest that, after the contractor's QAPjP preparer has reviewed QAS'comments, a QAPjP meeting or conference call shall be held between QAS, RPM and contractor's QAPjP preparer to shorten the QAPjP revision/approval process.

Attachment